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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/205,115	12/03/1998	JOHN C. EIDSON	10980749	8189

22878 7590 04/09/2003

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EXAMINER

HOLLOWAY III, EDWIN C

ART UNIT	PAPER NUMBER
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2635

DATE MAILED: 04/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/205,115

Applicant(s)

EIDSON, JOHN C.

Examiner

Edwin C. Holloway, III

Art Unit

2635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 18-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 18-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

***Examiner's Response***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1-29-03 has been entered.
2. In response to applicant's amendment filed 1-29-03, all the amendments to the specification and claims have been entered. The examiner has considered the new presentation of claims and applicant's arguments in view of the disclosure and the present state of the prior art. And it is the examiner's opinion that the claims are unpatentable for the reasons set forth in this Office action:

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 18-34 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant has not pointed out support for the "independently" limitation. Applicant has argued this "independently" limitation as differing from Kawamura's grouping, but has not pointed to

support for not grouping in applicant's disclosure. To the contrary claims such as claim 18 lines 11-13 and specification page 6 lines 11-13 and 17-21, page 7 lines 4-8 and page 8 lines 27-31 include coordinated control such as to form a circle. Such coordinated control corresponds to the grouping of Kawamura as disclosed in col. 1 lines 32-38 of Kawamura. In support of this statement, the examiner notes that col. 1 lines 47-63 of Evans discloses grouping for coordinated control to form a circle corresponding to the example of a circle on pages 7-8 of applicant's disclosure.

***Claim Rejections - 35 USC § 103***

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
6. Claims 18-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamura (US 5146410) and Eidson (US 5566180).

Kawamura discloses a multiple axes motion control system where command value and execution time is sent to each axis control circuit. Pulses are sent to the circuits which are considered to provide synchronization, but clocks with synchronization time are not specified. See at least fig. 1 and the abstract. Although axis control circuits 2 and 3 are grouped as group B, Kawamura comprises axis control circuit 1 in group A which is separate or independent of an axis in group B. Further, axis in the same group have start command moving at the same execution times, separately receive and store axis commands.

Eidson discloses an analogous art synchronized clock system with nodes including clocks synchronized by a protocol over a network for industrial process

facilities monitoring and control. This assures successful operation of for systems such as process control which depends on accurately knowing times for applying control signals at known times. See at least cols. 1-5.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included in Kawamura the axis circuits or nodes including clocks synchronized by a protocol over a network disclosed in Eidson to assure successful operation of for systems such as process control which depends on accurately knowing times for applying control signals at known times and suggested by Kawamura disclosing machine control and with execution times suggestive of Eidson's process facilities with clock synchronization.

7. Claims 18-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamura (US 5146410) and Eidson (US 5566180) as applied above in view of Evans (US 4514814).

Evans discloses an analogous art axis control system with independently controlled axes. Coordinated motion of several axes is attained by programmable grouping axis into motion groups to provide a desired motion. See the abstract and col. 1. If independent control is not clear from the combination applied above then it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included independent control as disclosed in Evans for providing desired motion as suggested by col. 2 lines 42-46 of Kawamura disclosing that the grouping may be varied according to commands from the PMC.

***Response to Arguments***

8. Applicant's arguments filed 1-29-03 have been fully considered but they are not persuasive and/or moot in view of the new grounds of rejection. Applicant has not pointed out support for the "independently" limitation, necessitating a new rejection under 35 USC 112 paragraph one. The argument that Kawamura lacks independent control is not persuasive because, although axis control circuits 2 and 3 are grouped as group B, Kawamura comprises axis control circuit 1 in group A which is separate or independent of an axis in group B. Further, axis in the same group have start command moving at the same execution times, separately receive and store axis commands. In addition, Evans discloses independently controlled axis with programmable grouping for coordinated motion such as forming a circle. The argument that applicant enables selection of trigger times independently among any axis rather than groups of axis is not persuasive in view of applicant's disclosure of coordination to form a circle, for example, relying on the same execution time  $t_0$  for each axis in page 8 line 30 and corresponds to the example of Evans. The argument that Kawamura includes a RAM buffer rather than a network is not persuasive because the PMC communicates to the CNC via interfaces 31,32,33 representing or forming part of a network. The rejection is based on a combination with Eidson that includes a network, and Evans also includes a network in the form of a bus. The argument that Eidson lacks coordination by trigger times is not persuasive because Eidson discloses event triggering in col. 7 lines 10-23 and coordinated event triggering is provided by Kawamura and/or Evans. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness

Art Unit: 2635

is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). The argument that applicant's invention specifies an appropriate motion control function for each axis independently in contrast to the command values of Kawamura fed directly in groups is not persuasive. Kawamura does not state that the command values are fed in groups. Further, Evans is applied to clearly disclose independent control.


#### **CONTACT INFORMATION**

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology center 2600 receptionist whose telephone number is **(703) 305-4700**.

Facsimile submissions may be sent via fax number (703) 872-9314 to customer service for entry by technical support staff. Questions regarding fax submissions should be directed to customer service voice line (703) 306-0377.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edwin C. Holloway, III whose telephone number is (703) 305-4818. The examiner can normally be reached on M-F (8:30:-5:00). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on (703) 305-4704.

EH  
4/6/03

  
**EDWIN C. HOLLOWAY, III**  
**PRIMARY EXAMINER**  
**ART UNIT 2635**